



Attorney Docket No. 073600.P002RC

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

**MICHAEL R. HATCH and
CHAK M. LEUNG**

Serial No.: 10/631,993

Filing Date: July 30, 2003

For: MAGNETIC HEAD SUSPENSION
ASSEMBLY FABRICATED WITH
INTEGRAL LOAD BEAM

A continuation of:

Reissue Application No: 08/521,786

Filed: August 31, 1995

of: MICHAEL R. HATCH and
CHAK M. LEUNG

U. S. Patent No. 5,282,103

Issued: January 25, 1994

Examiner: Not yet assigned

Art Unit: 2652

Declaration Under 37 CFR §1.175

Mail Stop Reissue
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

We, MICHAEL R. HATCH and CHAK M. LEUNG, the undersigned petitioners,
declare:

1. We are citizens of the United States of America and residents of
Mountain View and Palo Alto, respectively, both of California.

2. We are the named inventors in United States Letters Patent No. 5,282,103 issued on January 25, 1994 and entitled, MAGNETIC HEAD SUSPENSION ASSEMBLY FABRICATED WITH INTEGRAL LOAD BEAM AND FLEXURE. United States Letters Patent No. 5,282,103 indicates that it issued from Application No. 08/042,906 ("the '906 application"), a continuation-in-part of Serial No. 958,516 ("the '516 application"), filed October 7, 1992, abandoned. The above-referenced application no. 10/631,993, filed July 30, 2003, is a continuation of application no. 08/521,786 filed August 31, 1995 for reissue of U.S. Letters Patent No. 5,282,103.

3. On information and belief, the entire title to the United States Letters Patent No. 5,282,103 issued on January 25, 1994 to ourselves, is vested in WESTERN DIGITAL (FREMONT), INC., having a place of business at 44100 Osgood Road, Fremont, California 94539, and having purchased the entire title to United States Letters Patent No. 5,282,103, including any and all reissues and reissue applications, from the bankruptcy estate of READ-RITE CORPORATION on July 31, 2003.

PETITIONERS further declare the following.

4. We believe United States Letters Patent No. 5,282,103 ("the '103 patent") to be, through error, and without any deceptive intention, at least partly inoperative or invalid by reason of a defective application, and that less was claimed than we had a right to claim.

5. We believe ourselves to be entitled to claims of the scope as presented which refer, in one embodiment, to a head suspension assembly comprising a single integral planar piece, which piece comprises a load beam section and a flexure section, the flexure section having a shaped opening which defines two flexure beams that extend in a longitudinal direction, with a load point tongue extending into the shaped opening such that the load point tongue is disposed between the flexure beams, which connect to a transverse section spaced in the longitudinal direction from the load beam section, the load point tongue having a load supporting protrusion that contacts an air-bearing slider. These insufficiencies arose as a result of the original assignee, READ-RITE CORPORATION ("READ-RITE"), its attorney's, and ourselves, through error and without deceptive intent, having failed before the '103 patent issued, to recognize that (1) the Examiner improperly designated the '906

application as a continuation-in-part application (2) the original specification and drawings contain errors with respect to the nomenclature of certain recited elements, and (3) certain disclosed embodiments were not specifically claimed.

6. These errors were discovered as a result of discussions involving our attorneys that took place beginning on August 24, 1995. The discussions were initiated by our attorneys in response to preliminary motion papers served upon us by the opposing party in Interference No. 103,228, which involved the '103 patent and pending application no. 07/975,352, filed November 12, 1992.

7. After reading the opposing party's preliminary motion papers, the question of whether the '103 patent had been granted in error based upon a defective application was raised by our attorneys. This was the first time that we had considered such issues. At that time, we also came to realize that the '103 patent did not claim all that we had a right to claim. This latter realization was based upon our review of the subject matter of the invention disclosed and claimed in the '103 patent, which review took place at the time of our discussions; and also upon further consideration of U.S. Patent Nos. 5,434,731 and 5,428,490, which were brought to our attention by our attorneys during those discussions. After discovery of these deficiencies, authorization was given to correct such errors by seeking the present reissue of the '103 patent.

8. Specifically, during discussions with our attorneys it was discovered that the '906 application was filed with a form that requested a file wrapper continuation of the '516 application, but a new declaration which accompanied the preliminary amendment did not refer to the '516 application. The new declaration also did not acknowledge our duty to disclose to the Patent Office all information known to be material to patentability of our invention which became available between the October 7, 1992 filing date of the '516 application and the April 5, 1993 filing date of the '906 application, which we now understand was incumbent upon us. The Examiner, however, accepted the application and declaration without comment or objection, and designated the '906 application as a continuation-in-part of the '516 application.

9. As a result of discussions with our attorneys, we now consider that the original request for a file wrapper continuation and accompanying declaration were in error for the reasons given above. It was also error on the part of our attorneys, and ourselves, without deceptive intent, to fail to recognize that the Examiner's action in

accepting the '906 application as a continuation-in-part of the '516 application was improper.

10. During those same discussions, we reviewed the specification and drawings and discovered that the '103 patent included a number of errors which render claims 1-22 at least partially inoperative. Specifically, Figure 6C and the corresponding text of the specification (col. 5, lines 61-67) contains an error with respect the designation of the adhesive fillets that fasten the slider to outriggers 72. This element is designated by numeral 16 in the '103 patent, but should be listed as numeral 61 (numeral 16 is used elsewhere in the '103 patent to designate the shaped flexure opening of the embodiments shown in Figures 1A, 3, and 5A). Accordingly, in order to show correct correspondence with the drawings, the language in column 5, line 61 "an adhesive fillet 90" should read -- adhesive fillets 61 --. A similar correction is made to the specification in column 5, lines 65-66.

11. Furthermore, the specification uses terms that we now believe are unclear, misdescriptive, ambiguous, or unnecessarily limiting. For example, the language "cutout portion" may be incorrectly construed to mean that those designated regions are formed by a particular process step. Regarding the "cutout portion" in the flexure section, the specification (col. 2, lines 47-57) states,

"A U-shaped cutout portion that is formed in the flexure section adjacent to the load beam tongue delineates the shape of the tongue. In one embodiment of the invention, the flexure section includes two narrow etched legs that extend from the load beam and are disposed adjacent to the cutout portion. The narrow legs are connected by a lateral ear an the end of the flexure."

We now consider this section, as well as similar portions of the specification, to be misdescriptive for several reasons.

12. First, the "cutout" according to our invention is more accurately described as a shaped opening that may be formed in accordance with a variety of manufacturing methods (e.g., etching or stamping) that were known at the time our invention was made. Thus, the term "cutout" is indefinite since it can be misconstrued. Additionally, the "cutout portion" is described in the '103 patent as being disposed adjacent to the "narrow etched legs." We now believe this to be misdescriptive and unclear since the "cutout portion" is not a physical element that can be disposed next to or connected with another physical element. Rather, the

surrounding flexure structure results from the formation of the shaped opening according to our invention. That is, it was error not to positively recite the flexure structure as comprising the tongue which extends from the load beam, the flexure beams (i.e., legs), and the transverse section (i.e., lateral ear) as defined by the shape of the formed opening.

13. Also, we believe that the terms "leg" and "lateral ear" are ambiguous, vague, and misdescriptive. The reasons are because the term "leg" is commonly interpreted as providing a vertical support structure; likewise, "ear" is often interpreted in the mechanical arts as a structure having an end that is unsupported by other structure. In other words, it was error to use these terms in describing our invention because of the different meanings they can ascribe to the corresponding elements. Both of the above mentioned constructions are incorrect with respect to our invention. Accordingly, we have amended the specification and claims, replacing the term "leg" with "flexure beam"¹ to more clearly denote a horizontal connecting structure, and substituting "lateral ear" with "transverse section," which term is used in describing the embodiments of Figures 6A-C and Figure 7 (see col. 5, lines 54-56).

14. We believe that the errors in the specification and drawings render claim 1-22 of the '103 patent indefinite since those claims incorporate the same or similar terminology. Additionally, we believe original claims 1-22 to be indefinite as including language that recites other elements ambiguously, vaguely or without antecedent basis. It was error on the part of our attorneys, and ourselves, without deceptive intent, to fail to recognize the indefiniteness of claims 1-22 prior to the issuance of the '103 patent. It was also error to fail to recognize that the Examiner's action in allowing claims 1-22 was improper for the same reasons.

15. By way of further example, we believe claim 1 of the '103 patent to be indefinite for the reasons stated above, i.e., because it uses the terms "narrow legs," "cutout portion," and "lateral ear" when reciting essential elements of the invention. Moreover, the preamble of claim 1 recites,

¹) The American Heritage Dictionary, Third Edition (1992) defines "beam" as: "a squared-off log or a large, oblong piece of timber, metal, or stone used especially as a horizontal support in construction." Thus, usage of the term "beam" is consistent with the specification which describes the elongated, horizontal loading element 10 as a "load beam."

"... a slider for transducing data that is recorded and read out from a surface of a rotating magnetic disk drive comprising: ..."

Here, it was error to state that data is read out from the surface of a disk drive, instead of from the surface of a rotating magnetic disc. Further, the fourth paragraph of claim 1 recites "a tongue extending from said end of said narrowed load beam section." This recitation is indefinite because there is no antecedent basis for "said narrowed load beam section." (The second paragraph of claim 1 recites "a load beam section formed with a narrowed end"). Because claims 2-22 are dependent upon, and therefore include the deficiencies of claim 1, they are also indefinite, at least for the reasons given above.

16. During discussions with our attorneys which took place in early June, 1996 we discovered several additional errors that were clerical in nature and arose, without any deceptive intent, from an oversight of our attorneys and ourselves during the review of our reissue application. For example, column 5, line 60 contains an error in that the term "cutouts 74" should have been deleted (i.e., bracketed) in the reissue application. The correct inserted wording, -- flexure beams 68 by spaces 74 --, appears below this wording in the reissue application. Additionally, claims 1 and 13 contain an error in the use of the past tense word "narrowed", which might be interpreted as connotating a certain fabrication process. The correct word for both claims is -- narrow --.

17. Furthermore, in column 1, line 56, the phrase "load dimple" was changed to -- protrusion, commonly known as a load dimple, --. The phrase "load dimple" is a term of art that commonly refers to an outwardly extending or protruding member that contacts the head in a suspension assembly. However, the word "dimple", by itself, has general meaning as an indentation. Therefore, the specification has been changed to indicate the phrase "load dimple" as being equivalent to a "protrusion", which more clearly defines the essential characteristic of the corresponding element in the invention. Thus, column 2 of the specification recites "a load supporting protrusion or dimple" to indicate the interchangeability of the two wordings. Having correctly established this meaning, the remainder of the specification is unchanged (i.e., the element is simply referred to as a "dimple" or "load dimple").

18. We further believe that the claims set forth in the '103 patent are deficient with respect to the omission of claims 23-24 presented by way of amendment in the above-identified application, to which we believe ourselves to also be entitled. These insufficiencies arose as a result of the original assignee READ-RITE CORPORATION, its attorneys, and ourselves, through error and without any deceptive intent, having failed, before the '103 patent issued, to have expressly claimed certain embodiments embraced by claims 23-24. These insufficiencies also arose because before the '103 patent issued, the assignee, the assignee's attorneys, and ourselves, through error and without any deceptive intent, accepted claims which did not set forth certain embodiments of the invention disclosed in the '103 patent.

19. On information and belief, these insufficiencies were not discovered until after discussions on August 24, 1995 with our attorneys during which discussion we first became aware of the existence of U.S. Patent Nos. 5,434,731 (entitled, **"Process For Making A One-Piece Flexure For Small Magnetic Heads"**; issued July 18, 1995) and 5,428,490 (entitled **"One-Piece Flexure Having An Etched Load Point Button"**; issued June 27, 1995), both of which list Tracy M. Hagen as inventor ("the Hagen patents"). The Hagen patents are both divisional applications of Ser. No. 07/975,352, which application is presently involved in Interference No. 103,228 with the '103 patent. Subsequently, a question was raised as to the construction and scope of the claims of the Hagen patents. Upon review of the Hagen patents, we came to realize that much of the claimed subject matter was first disclosed, but not claimed, as various embodiments in the '103 patent.

20. We believe that we were the first to invent the subject matter claimed in the Hagen patents, as well as additional subject matter not previously claimed. Accordingly, we have included new claims 23-24 in our continuation reissue application, which claims cover aspects and embodiments of our invention to which we believe ourselves to also be entitled.

21. Herein presented, independent claims 23 and 24 recite elements of our suspension assembly not previously claimed. By way of example, support for this structure is found throughout the '103 patent; specifically, the limitation respecting the offset load point protrusion is found in Figure 5A and at column 4, lines 30-40. Support for new claim 24 is explicit in the specification at column 4, lines 30-40.

22. All errors which are being corrected in the present continuation reissue application up to the time of filing of this declaration arose without any deceptive intention on the part of applicant. In view of the foregoing, it is respectfully submitted that U.S. Patent No. 5,282,103 should be reissued with the claims now presented or with claims commensurate in scope therewith.

23. We have reviewed and understand the contents of the above-referenced reissue application, including the specification, and claims 1,2, and 6-24, as presented in the amendment filed herewith. We believe ourselves to be the first, original and joint inventors of the subject matter which is described and originally claimed in United States Patent No. 5,282,103 ("the '103 patent") and in the foregoing specification for which invention we solicit a reissue patent. We also believe ourselves to be the first, original and joint inventors of the invention of claims 1, 2, and 6-24, as presented herewith. We do not know and do not believe this invention was ever known or used in the United States before our invention thereof.

24. We hereby claim the benefit under Title 35, United States Code, Section 120 of United States Application No. 07/958,516, filed October 7, 1992, now abandoned, as well as application no. 08/521,786 filed August 31, 1995, which is a reissue of application no. 08/042,906 filed April 5, 1993, which issued as U. S. Patent No. 5,282,103 on January 25, 1994, which is a continuation-in-part of application no. 07/958,516, and, insofar as the subject matter of each of the claims of this reissue application is not disclosed in our prior United States Application No. 958,516 in the manner provided by the first paragraph of Title 35, United States Code, Section 112, we acknowledge the duty to disclose all information known to us to be material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56 which became available between the October 7, 1992 filing date of the '516 application and the filing date of this reissue application.

25. WHEREFORE, we the undersigned petitioners respectfully request a reissue patent as herein sought for the purpose of adequately, clearly and fully protecting the disclosed invention to which we are entitled.

26. We, the undersigned petitioners, declare further that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are

punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any reissue patent issued thereon.

Dated: 12/1/03

By: 
MICHAEL R. HATCH

Post Office Address:

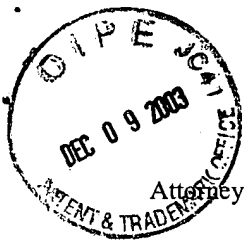
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Attorney Docket No. 073600.P002RC

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

**MICHAEL R. HATCH and
CHAK M. LEUNG**

Serial No.: 10/631,993

Filing Date: July 30, 2003

For: MAGNETIC HEAD SUSPENSION
ASSEMBLY FABRICATED WITH
INTEGRAL LOAD BEAM

Examiner: Unassigned

Art Unit: 2652

A continuation of:

Reissue Application No: 08/521,786

Filed: August 31, 1995

of: MICHAEL R. HATCH and
CHAK M. LEUNG

U. S. Patent No. 5,282,103

Issued: January 25, 1994


Consent of Assignee to Reissue

Mail Stop Reissue
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Pursuant to 37 CFR § 3.73, the undersigned, by authority vested in him by WESTERN DIGITAL (FREMONT), INC., assignee of the entire interest in the above-identified Letters Patent, the invention described therein, and in any reissue thereof by assignment recorded at Reel 6513, Frames 442-443, hereby assents on behalf of the assignee to the accompanying application for reissue.

The recorded assignment of the above-identified Letters Patent is to Read-Rite Corporation. WESTERN DIGITAL (FREMONT), INC., purchased the above-identified Letters Patent, including any and all reissues and reissue applications, on July 31, 2003, as evidenced by the attached document entitled, "Assignment of Patent Rights" which establishes a chain of title from the original assignee, Read-Rite Corporation, to the current owner, WESTERN DIGITAL (FREMONT), INC. The attached document is also being submitted to the Assignment Branch of the Patent Office under separate cover for recordation pursuant to 37 CFR § 3.11.

Dated: 09/23/03 By: 
Milad G. Shara
Chief Patent Counsel,
Western Digital (Fremont), Inc.

ASSIGNMENT OF PATENT RIGHTS

This ASSIGNMENT OF PATENT RIGHTS, dated as of July 31, 2003, is made and entered into by and between TEVIS T. THOMPSON, JR., in his capacity as TRUSTEE for the Bankruptcy Estate of READ-RITE CORPORATION, a Delaware corporation (the "*Trustee*"), and WESTERN DIGITAL (FREMONT), INC., a Delaware corporation, formerly known as RR(US) ACQUISITION CORPORATION (the "*Purchaser*"). Capitalized terms used but not otherwise defined herein shall have the meanings given to such terms in the Purchase Agreement (as defined below).

WHEREAS, the Trustee and the Purchaser have entered into that certain Asset Purchase Agreement, dated as of July 24, 2003 (the "*Purchase Agreement*"), whereby the Trustee, has agreed to cause the Bankruptcy Estate to sell and assign, and Purchaser has agreed to buy and acquire rights, title and interests in and to the patents and patent applications which are a part of the Purchased Assets (as defined in the Purchase Agreement) (the "*Patents and Patent Applications*"), including without limitation those listed in Exhibit A attached hereto.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Trustee hereby assigns, transfers and conveys to Purchaser any and all worldwide rights, title and interests Trustee holds, or may hold, in and to the Patents and Patent Applications, together with (a) any inventions described and claimed therein, (b) any applications claiming priority from the applications; (c) any and all utility, divisional, continuation, substitute, renewal, reissue, and other applications related thereto which have been or may be filed in the United States or elsewhere in the world; (d) any and all patents (including reissues and re-examinations) which may be granted on the applications, and (e) any and all right of priority in the applications, together with all rights derived from any of the above, including but not limited to the right to sue for and collect damages for past, present and future infringement.

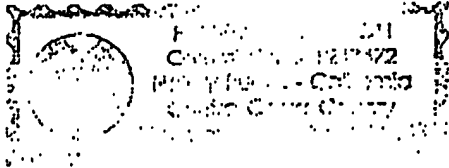
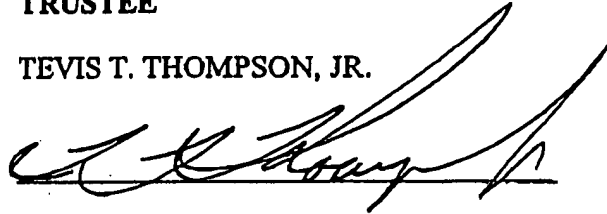
Trustee further agrees that, should additional or further documentation of the assignment be required for whatever reason, Trustee will, without further consideration, provide or execute such other information or documents as may be necessary upon Purchaser's reasonable request. Nothing in this Agreement shall, or shall be deemed to, modify or otherwise affect any provisions of the Purchase Agreement or affect or modify any of the rights or obligations of the parties under the Purchase Agreement. Assignment of this Agreement shall be governed by the terms of Section 8.6 of the Purchase Agreement; provided, however, that no such assignment by either party shall relieve such party of any of its obligations under this Agreement. This Agreement will be governed by, and construed in accordance with, the internal laws of the State of California applicable to contracts executed and performed entirely therein, without regard to the principles of choice of law or conflicts or law of any jurisdiction. If any term or other provision of this Agreement is invalid, illegal or incapable of being enforced by any rule of law or public policy, all other conditions and provisions of this Agreement will nevertheless remain in full force and effect so long as the economic or legal substance of the transactions contemplated hereby is not affected in any manner materially adverse to any party. Upon such determination that any term or other provision is invalid, illegal or incapable of being enforced, the parties hereto will negotiate in good faith to modify this Agreement so as to effect the original intent of the parties as closely as possible in a mutually acceptable manner in order that the transactions contemplated hereby be consummated as originally contemplated to the greatest extent possible. This Agreement may be executed in one or more counterparts, and by the

different parties hereto in separate counterparts, each of which when executed will be deemed to be an original but all of which taken together will constitute one and the same agreement.

IN WITNESS WHEREOF, Trustee has caused this Assignment of Patent Rights to be executed by its duly authorized representative effective as of the date first written above.

TRUSTEE


TEVIS T. THOMPSON, JR.



STATE OF California
COUNTY OF Contra Costa

On this 29 day of July, 2003, before me, a Notary Public in and for said State, personally appeared Tevis T. Thompson, Jr. personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose names(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS, my hand and official seal.


Notary Public

ACKNOWLEDGED AND AGREED:

PURCHASER

WESTERN DIGITAL (FREMONT), INC.

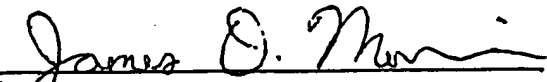
By: 
Name: James Morris
Title: Vice President
Business Development

EXHIBIT A

PATENTS AND PATENT APPLICATIONS

EXHIBIT A

PATENTS AND PATENT APPLICATIONS

5,256,266	Alumina Material Useful with Thin Film Heads	Blanchette, Maddex, Shimek	10/31/91	10/26/93	RR1011
5,282,103	Magnetic Head Suspension Assembly Fabricated with Integral Load Beam and Flexure	Hatch, Leung	10/7/92	1/25/94	RR1055
5,290,416	Unidirectional Field Generator	Tong, Newman, Wu	7/10/92	3/1/94	RR1013
5,299,081	Magnetic Head Suspension Assembly	Hatch, Leung, Murray	8/5/92	3/29/94	RR1044
5,309,305	Dual Element Magnetostrictive Sensing Head	Nepela, Valstyn	11/16/92	5/3/94	RR1047
5,327,310	Thin Film Contact Recording Head	Bischoff, Leung, Murray	6/25/92	7/5/94	RR1014
5,335,458	Processing of Magnetic Head Flexures with Slider Elements	Stoffers, Mokorarat, Pecelmer	9/23/91	8/9/94	RR1008
5,339,702	Test Fixture for Air Bearing Magnetic Head Suspension Assembly	Viches	12/24/92	8/23/94	RR1060
5,353,180	Air Bearing Magnetic Slider with Wishbone-Shaped Rails	Murray	3/1/93	10/4/94	RR1081
5,357,389	Alumina Material Useful with Thin Film Heads	Blanchette, Maddex, Shimek	8/2/93	10/18/94	RR1011A
5,359,480	Magnetic Head Air Bearing Slider	Nepela, Leung, Chang	12/21/92	10/25/94	RR1017
5,373,408	Configuring Domain Pattern in Thin Films of Magnetic Heads	Bischoff, Tong, Chen	7/20/92	12/13/94	RR1032
5,385,637	Stabilizing Domains in Inductive Thin Film Heads	Thayamballi	12/7/92	1/31/95	RR1022
5,386,666	Automated System for Controlling Taper Length During the Lapping of Air Bearing Surface of Magnetic Heads	Cole	2/11/93	2/7/95	RR1045
5,396,387	Air Bearing Magnetic Head Sliders	Murray	11/30/92	3/7/95	RR1024A
5,396,388	Compact, High-Speed, Rotary Actuator & Transducer Assembly With Reduced Moment of Inertia & Mass-Balanced Structural Overlap With Drive Motor & Organizing Method For Same	Brown	2/27/92	3/7/95	Censtor (by assignment)
5,406,432	Air Bearing Magnetic Head Sliders with Separate Center Rail Segments	Murray	10/7/93	4/11/95	RR1116
5,410,794	Caddy and Carrier Tool for Assembling a Head Arm Stack	Tucker	4/22/94	5/2/95	RR1088